

## Glass Passivated Bridge Rectifiers

### FEATURES

- Glass passivated junction
- Ideal for printed circuit board
- Reliable low cost construction
- UL Recognized File # E-326243
- Compliant to RoHS Directive 2011/65/EU and in accordance to WEEE 2002/96/EC
- Halogen-free according to IEC 61249-2-21 definition

### MECHANICAL DATA

**Case:** KBL

Molding compound, UL flammability classification rating 94V-0

Base P/N with suffix "G" on packing code - halogen-free

**Terminal:** Matte tin plated leads, solderable per JESD22-B102

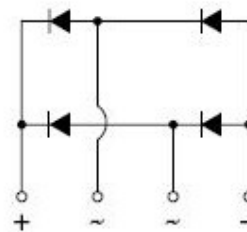
Meet JESD 201 class 1A whisker test

**Polarity:** Polarity as marked on the body

**Weight:** 5.6 g (approximately)



KBL



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T <sub>A</sub> =25°C unless otherwise noted)									
PARAMETER	SYMBOL	KBL 401G	KBL 402G	KBL 403G	KBL 404G	KBL 405G	KBL 406G	KBL 407G	Unit
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	V
Maximum average forward rectified current	I <sub>F(AV)</sub>	4							A
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	150							A
Rating for fusing (t<8.3mS)	I <sup>2</sup> t	93							A <sup>2</sup> s
Maximum instantaneous forward voltage (Note 1) I <sub>F</sub> = 2A I <sub>F</sub> = 4A	V <sub>F</sub>	1.0 1.1							V
Maximum DC reverse current at rated DC blocking voltage T <sub>J</sub> =25 °C T <sub>J</sub> =125°C	I <sub>R</sub>	10 500							μA
Typical thermal resistance	R <sub>θJL</sub> R <sub>θJA</sub>	2.4 19							°C/W
Operating junction temperature range	T <sub>J</sub>	- 55 to +150							°C
Storage temperature range	T <sub>STG</sub>	- 55 to +150							°C

Note 1: Pulse Test with PW=300μs,1% Duty Cycle

ORDERING INFORMATION				
PART NO.	PACKING CODE	GREEN COMPOUND CODE	PACKAGE	PACKING
KBL40xG (Note 1)	T0	Suffix "G"	KBL	500 / Tray

Note 1: "x" defines voltage from 50V (KBL401G) to 1000V (KBL407G)

EXAMPLE				
PREFERRED P/N	PART NO.	PACKING CODE	GREEN COMPOUND CODE	DESCRIPTION
KBL407G T0	KBL407G	T0		
KBL407G T0G	KBL407G	T0	G	Green compound

## RATINGS AND CHARACTERISTICS CURVES

(TA=25°C unless otherwise noted)

FIG.1 FORWARD CURRENT DERATING CURVE

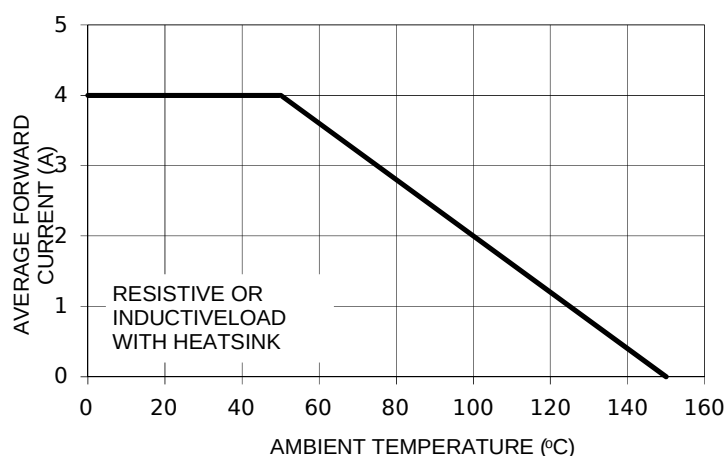


FIG. 2 TYPICAL REVERSE CHARACTERISTICS

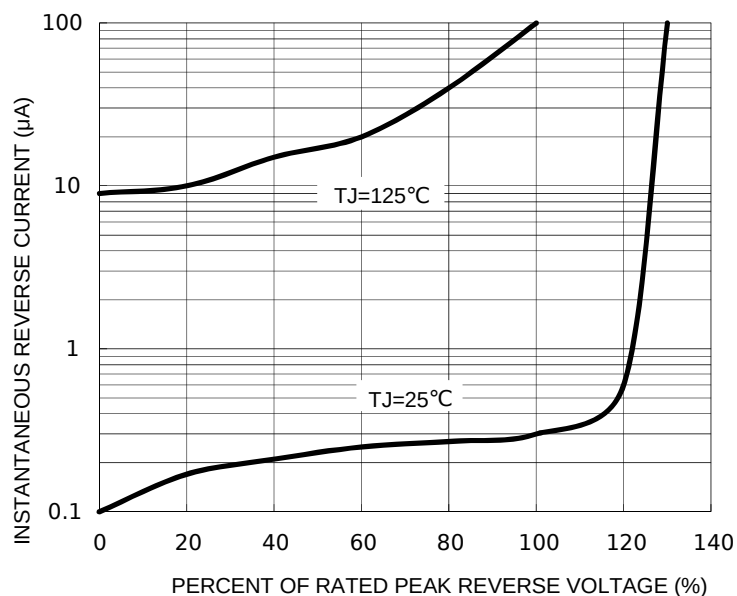


FIG. 3 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

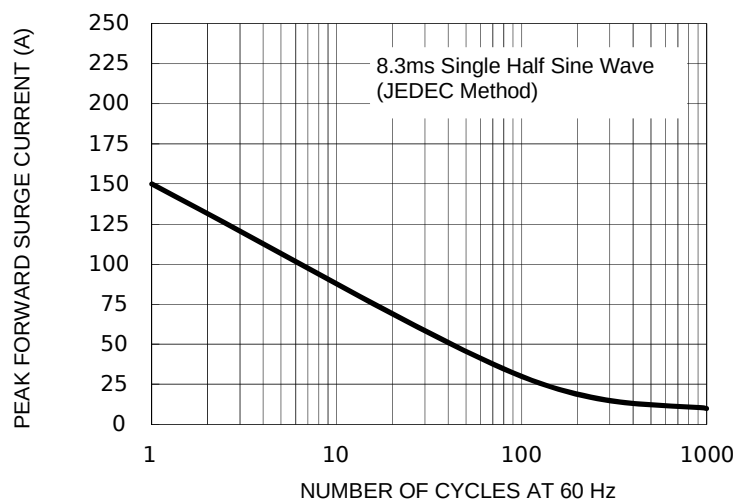


FIG. 4 TYPICAL FORWARD CHARACTERISTICS

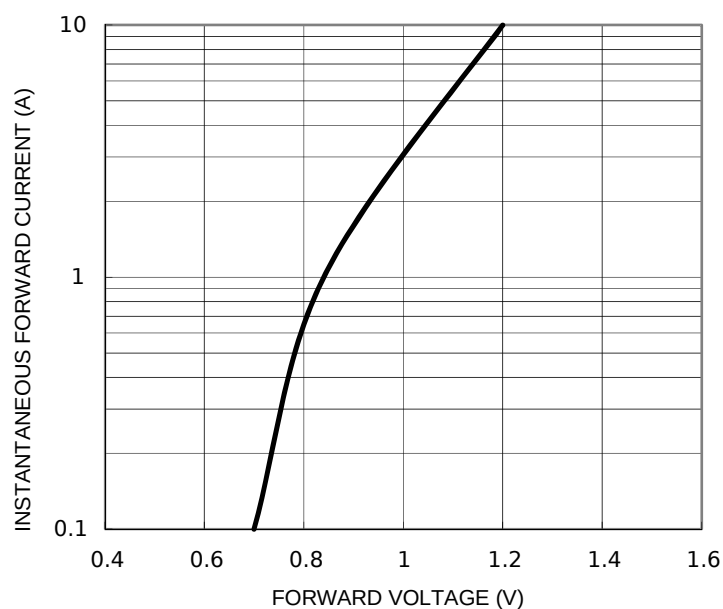
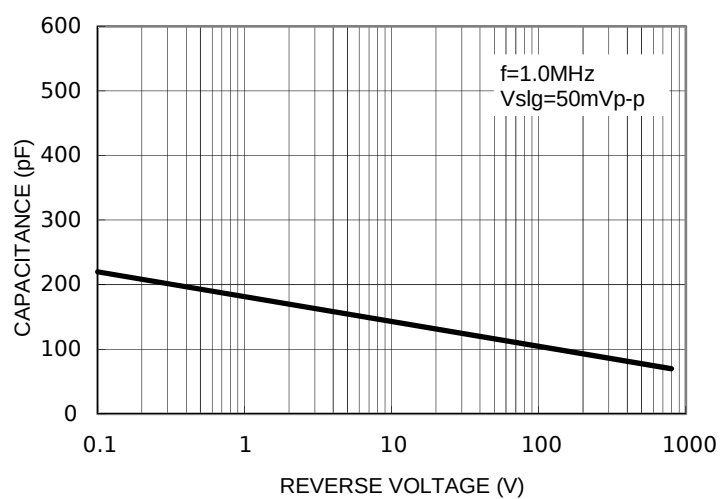
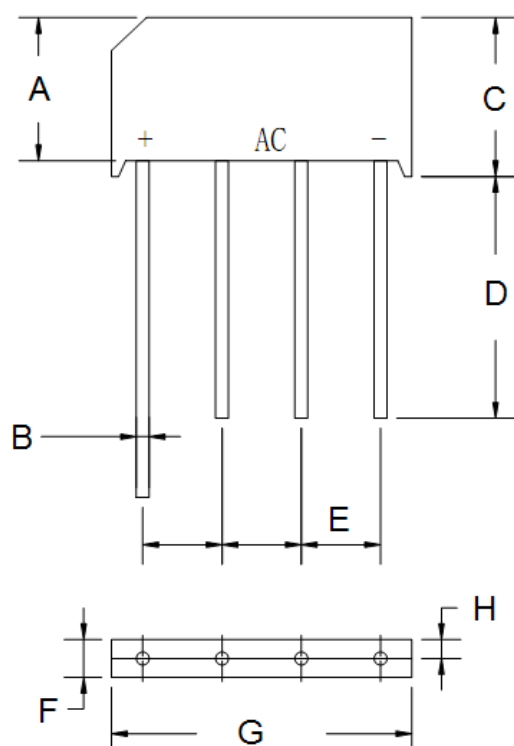


FIG. 5 TYPICAL JUNCTION CAPACITANCE

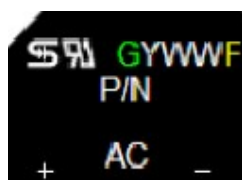


PACKAGE OUTLINE DIMENSIONS



DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	13.70	14.70	0.539	0.579
B	1.20	1.30	0.047	0.051
C	15.20	16.30	0.598	0.642
D	19.00	-	0.748	-
E	4.60	5.60	0.181	0.220
F	5.50	6.50	0.217	0.256
G	18.50	19.50	0.728	0.768
H	2.1 (TYP)		0.083 (TYP)	

MARKING DIAGRAM



P/N = Specific Device Code  
G = Green Compound  
YWW = Date Code  
F = Factory Code

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